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--7. (New) An agent determined to be capable of specifically inhibiting the fusion of a macrophage-tropic primary isolate of HIV-1 to a CD4⁺ cell, but not a T cell-tropic isolate of HIV-1 to a CD4⁺ cell, using a method which comprises:

- Sub 1*
- (a) contacting (i) a first appropriate CD4⁺ cell, which is labeled with a first dye, with (ii) a cell expressing the HIV-1 envelope glycoprotein of the macrophage-tropic primary isolate of HIV-1 on its surface, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the CD4⁺ cell to the cell expressing the HIV-1 envelope glycoprotein on its surface in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;
- (b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and
- (c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;
- (d) contacting (i) a second appropriate CD4⁺ cell, which is labeled with a first dye, with (ii) a cell expressing the HIV-1 envelope glycoprotein of a T cell-tropic isolate of HIV-1 on its surface, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the CD4⁺ cell to the cell expressing the HIV-1 envelope glycoprotein on its surface in the absence of the agent, the first and second dyes being selected so as to allow resonance energy
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- transfer between the dyes;
- (e) exposing the product of step (d) to conditions which would result in resonance energy transfer if fusion has occurred; and
- (f) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent, wherein a decrease in transfer in step (c) but not step (f) indicates that the agent is capable of specifically inhibiting fusion of the macrophage-tropic primary isolate of HIV-1 to CD4⁺ cells and a decrease in transfer in step (f) but not step (c) indicates that the agent is capable of specifically inhibiting the fusion of a macrophage-tropic primary isolate of HIV-1 to the CD4⁺ cells.--

~~8. (New) The agent of claim 7, wherein the agent is an antibody.~~

~~9. (New) An agent capable of specifically inhibiting the fusion of a macrophage tropic primary isolate of HIV-1 with a CD⁺ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1.--~~

~~10. (New) A method of inhibiting fusion of a macrophage-tropic primary isolate of HIV-1 with a CD⁺ cell susceptible to infection by a macrophage-tropic primary isolate of HIV-1 which comprises contacting the CD4⁺ cell with an amount of an agent capable of specifically inhibiting such fusion so as to thereby inhibit such fusion.~~

~~11. (New) An agent determined to be capable of specifically inhibiting the fusion of a T cell-tropic isolate~~

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Sub. C1
H2 cont.

Sub. C2

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of HIV-1 to a CD4⁺ cell, but not a macrophage-tropic primary isolate of HIV-1 to a CD4⁺ cell, using a method which comprises:

- (a) contacting (i) a first appropriate CD4⁺ cell, which is labeled with a first dye, with (ii) a cell expressing the HIV-1 envelope glycoprotein of the macrophage-tropic primary isolate of HIV-1 on its surface, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the CD4⁺ cell to the cell expressing the HIV-1 envelope glycoprotein on its surface in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;
- (b) exposing the product of step (a) to conditions which would result in resonance energy transfer if fusion has occurred; and
- (c) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent;
- (d) contacting (i) a second appropriate CD4⁺ cell, which is labeled with a first dye, with (ii) a cell expressing the HIV-1 envelope glycoprotein of a T cell-tropic isolate of HIV-1 on its surface, which is labeled with a second dye, in the presence of an excess of the agent under conditions which would normally permit the fusion of the CD4⁺ cell to the cell expressing the HIV-1 envelope glycoprotein on its surface in the absence of the agent, the first and second dyes being selected so as to allow resonance energy transfer between the dyes;
- (e) exposing the product of step (d) to conditions

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which would result in resonance energy transfer if fusion has occurred; and

- (f) determining whether there is a reduction of resonance energy transfer, when compared with the resonance energy transfer in the absence of the agent, wherein a decrease in transfer in step (c) but not step (f) indicates that the agent is capable of specifically inhibiting fusion of the macrophage-tropic primary isolate of HIV-1 to CD4⁺ cells and a decrease in transfer in step (f) but not step (c) indicates that the agent is capable of specifically inhibiting the fusion of a T cell-tropic isolate of HIV-1 to the CD4⁺ cells.--

- 12. (New) The agent of claim 11, wherein the agent is an antibody.--
- 13. (New) An agent capable of specifically inhibiting the fusion of a T cell-tropic isolate of HIV-1 with a CD4⁺ cell susceptible to infection by a T cell-tropic isolate of HIV-1.--
- 14. (New) A method of inhibiting fusion of a T cell-tropic isolate of HIV-1 with a CD4⁺ cell susceptible to infection by a T cell-tropic isolate of HIV-1 which comprises contacting the CD4⁺ cell with an amount of an agent capable of specifically inhibiting such fusion so as to thereby inhibit such fusion.--

In the Abstract:

Please add page 67 containing the abstract of the disclosure, a copy of which is attached hereto as Exhibit A.